

Remarks

Favorable reconsideration of this application, in view of the above amendments and in light of the following remarks and discussion, is respectfully requested.

Claims 1-4 and 6-24 are currently pending in the application; independent Claims 1, 9, and 17 having been amended, dependent Claim 5 having been canceled without prejudice or disclaimer, and new dependent Claims 21-24 having been added, by way of the present response. Applicants respectfully assert that support for the changes to the claims is self-evident from the originally filed disclosure, including the original claims, and that therefore no new matter has been added.¹

In the outstanding Office Action Claims 17-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,963,699 to Tanaka et al. (Tanaka); and Claims 1-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,662,173 to Davies et al. (Davies). Applicants respectfully assert that the amendments to the claims have overcome the rejections for the following reasons.

The present invention is directed to methods for coupling plastic optical fiber (e.g., as recited in independent Claim 1), as well as coupling units (e.g., as recited in independent Claims 9 and 17). Independent Claim 1 recites providing a holder including a groove with openings having inclined portion at opposite ends of the holder configured to hold plastic optical fibers in a longitudinal direction. Opposed end faces of the plastic optical fibers are abutted together. A first portion of a clip is removably disposed on a face of the holder and a second portion of the clip is removably disposed on a face of a cover to apply a lateral pressure to the plastic optical fibers therebetween to sandwich the plastic optical fibers. Ends of the plastic optical fibers are introduced into the groove in the holder through the inclined portions when the clip is disposed to secure the holder against the cover. Independent Claim

¹ Applicants respectfully assert that support for the changes to the independent claims is provided, in part, by original dependent Claim 5, which has been canceled.

9 recites a holder including a groove with openings having inclined portion at opposite ends of the holder configured to hold plastic optical fibers in a longitudinal direction. A clip includes first and second portions, the clip configured to be removably disposed to contact a face of a cover with the first portion and a face of the holder with the second portion to apply a lateral pressure to the plastic optical fibers therebetween to sandwich the plastic optical fibers. The clip is configured to permit introduction of ends of the plastic optical fibers into the groove in the holder through the inclined portions when the clip is disposed to secure the holder against the cover. Independent Claim 17 recites a holder including a groove with openings having inclined portion at opposite ends of the holder configured to receive optical fibers. A cover is configured to cover the groove of the holder. A removable clip includes first and second portions configured to urge the holder and the cover together, the first portion configured to contact a surface of the holder and the second portion configured to contact a surface of the cover. The clip is configured to permit introduction of ends of the optical fibers into the groove in the holder through the inclined portions when the clip is disposed to secure the holder against the cover.

Regarding the rejection of independent Claim 17, Tanaka is directed to an optical fiber mechanical splice. As shown in Figures 4 and 5, for example, of Tanaka, the optical fiber mechanical splice 1 includes wedge insertion openings 25 provided for separating a base member 2 from a lid member 3 by inserting wedges 24.² The optical fiber mechanical splice 1 enables connection of two optical fibers 7 by inserting wedges 24 into wedge insertion openings 25 to relieve compression force between the base member 2 and the lid member 3, inserting the fibers 7 from both fiber entry openings 21, and abutting ends of the fibers 7 which are disposed on top of a fiber housing V-groove 8.³

² Column 5, lines 17-19.

³ Column 6, lines 52-58.

Applicants respectfully assert that Tanaka does not teach, or render obvious, however, the claimed features of a clip configured to permit introduction of ends of optical fibers into a groove in a holder through inclined portions when the clip is disposed to secure the holder against a cover, as recited in independent Claim 17. Rather, as discussed above, Tanaka states that wedges 24 are inserted into wedge opening 25, thereby moving the base member 2 away from the lid member 3, during insertion of the fibers 7, for example.

Specifically, independent Claim 17 recites “the clip configured to permit introduction of ends of the optical fibers into the groove in the holder through the inclined portions when the clip is disposed to secure the holder against the cover.” Thus, Applicants respectfully request that the rejection of independent Claim 17 under 35 U.S.C. § 102(b) be withdrawn, and the allowance of independent Claim 17.

Regarding the rejection of independent Claim 1 and 9, Davies is directed to an optical fiber connector. As shown in Figure 3, for example, of Davies, fibers 21 are placed in fiber-receiving grooves of substrate 11. Subsequently, cover 12 is placed on top of the substrate 11.⁴

Applicants respectfully assert that Davies does not teach or suggest, however, the claimed features of introducing ends of plastic optical fibers into groove in a holder through inclined portions when a clip is disposed to secure the holder against a cover, as recited in independent Claim 1. Rather, as discussed above, Davies states that the fibers 21 are placed in the fiber-receiving grooves of substrate 11 before the cover 12 is placed on the substrate 11, for example.

Specifically, independent Claim 1 recites “introducing ends of the plastic optical fibers into the groove in the holder through the inclined portions when the clip is disposed to secure the holder against the cover.” Thus, Applicants respectfully request that the rejection

⁴ Column 5, lines 5-13.

of independent Claim 1 under 35 U.S.C. § 103(a) be withdrawn, and the allowance of independent Claim 1.

For reasons similar to those discussed above with respect to independent Claim 1, Applicants respectfully assert that the claimed features recited in independent Claim 9 of a clip configured to permit introduction of ends of plastic optical fibers into a groove in a holder through inclined portions when the clip is disposed to secure the holder against a cover, are not taught or suggested by Davies.

Specifically, independent Claim 9 recites “the clip configured to permit introduction of ends of the plastic optical fibers into the groove in the holder through the inclined portions when the clip is disposed to secure the holder against the cover.” Thus, Applicants respectfully request that the rejection of independent Claim 9 under 35 U.S.C. § 103(a) be withdrawn, and the allowance of independent Claim 9.

Applicants respectfully assert that Claims 2-4, 6-8, 10-16, and 18-24 are allowable for the same reasons as the independent claims from which they depend, as well as for their own features. Thus, Applicants respectfully request that the rejections of dependent Claims 2-4, 6-8, 10-16, and 18-20 under 35 U.S.C. §§ 102(b) and 103(a) be withdrawn, and the allowance of dependent Claims 2-4, 6-8, 10-16, and 18-24.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-4 and 6-24 is earnestly solicited.

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Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

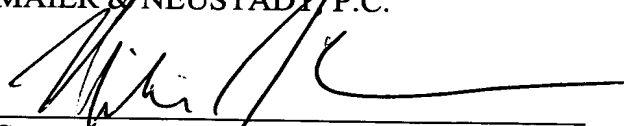
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Respectfully submitted,

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